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WHAT IS CLAIMED IS:

1. An automated processing apparatus, comprising:

means for homogenizing bio-matter;

means for adjusting pH of juice of homogenized bio-matter;

means for heating the juice of homogenized bio-matter to a predetermined temperature for a predetermined length of time;

means for centrifuging the heat treated juice of homogenized bio-matter to separate pellet from supernatant; and

a computer connected to each of said means, said computer for monitoring and controlling the automated processing apparatus.

2. An automated processing apparatus as set forth in claim 1, wherein said computer comprises memory and a means for outputting recorded information.

3. An automated processing apparatus as set forth in claim 2, wherein said means for outputting recorded information comprises a printer for printing a written record of processing steps for processing bio-matter.

4. An automated processing apparatus as set forth in claim 1, further comprising a means for filtering the supernatant after centrifuging.

5. An automated processing apparatus as set forth in claim 4, wherein said

filtering means includes an ultrafiltration system.

6. An automated processing apparatus as set forth in claim 4, wherein said filtering means includes at least one first filter and a separate ultrafiltration system.

7. An automated processing apparatus as set forth in claim 1, further comprising:

means for re-suspending pellet after centrifuging;

means for adjusting pH of re-suspended pellet; and

second centrifuging means for centrifuging pH adjusted re-suspended pellet to separate a second supernatant from pellet material.

8. An automated processing apparatus as set forth in claim 1, wherein said means for homogenizing bio-matter comprises a grinder and press apparatus.

9. An automated processing apparatus as set forth in claim 8, wherein said means grinder and press apparatus comprises:

a first cutter, a second cutter and a press,

said first cutter having a plurality of blades for cutting the bio-matter to a first predetermined size;

said second cutter having a plurality of blades for cutting the cut bio-matter to a second predetermined size smaller than the first predetermined size; and

said press for extracting green juice from the cut bio-matter and expelling solid

waste material.

10. An automated processing apparatus as set forth in claim 9, further comprising a dryer for drying the solid waste material expelled from said press.

11. An automated processing apparatus as set forth in claim 8, wherein said grinder and press apparatus is adapted to extract green juice from the bio-matter and expel solid waste material.

12. An automated processing apparatus as set forth in claim 11, further comprising a dryer for drying the solid waste material expelled from said grinder and press apparatus.

13. An automated processing apparatus as set forth in claim 1, wherein said means for adjusting pH of juice of homogenized bio-matter comprises:

a tank for holding the juice of homogenized bio-matter;

a pH sensor within said tank connected to said computer;

a pH adjuster supply;

a fluid level sensor within said tank connected to said computer; and

a pH adjuster supply control valve connected to said computer, said computer controlling introduction of pH adjuster in response to signals from said pH sensor.

14. An automated processing apparatus as set forth in claim 13, wherein said

means for adjusting pH of juice of homogenized bio-matter further comprises a re-circulating system for re-circulating the juice exiting said tank back into said tank in response to control signals from said computer.

15. An automated processing apparatus as set forth in claim 14, wherein said re-circulating system further comprises:

a flow control pump connected to an outlet pipe from said tank;

a valve proximate said flow control pump; and

a re-circulation pipe from said valve to said tank;

wherein said valve is adapted to direct flow of pH adjusted juice from said outlet pipe and said flow control pump back into said tank in response to control signals from said computer.

16. An automated processing apparatus as set forth in claim 15, further comprising a heat retaining means downstream from said means for heating, said heat retaining means having a temperature sensor connected to said computer for monitoring temperature of heated juice.

17. An automated processing apparatus as set forth in claim 16, wherein said computer is programmed to receive signals from said a pH sensor, said fluid level sensor, and said temperature sensor of said heat retaining means, signals received from said sensors processed by said computer for control of said means for adjusting pH of juice of homogenized bio-matter and said valve proximate said flow control pump.

18. An automated processing apparatus as set forth in claim 17, further comprising a cooling device downstream from said heat retaining means for reducing temperature of heat treated juice exiting said heat retaining means.

19. An automated processing apparatus as set forth in claim 18, further comprising:

a second tank downstream from said cooling device for retaining cooled heat treated juice exiting said cooling device;

a second valve between said second tank and said means for centrifuging; and

a re-circulation pipe from said second valve to said second tank;

wherein said second valve is adapted to direct flow of cooled juice from an outlet pipe of said second tank and said flow control pump back into said tank in response to control signals from said computer.

20. An automated processing apparatus as set forth in claim 19, wherein said means for heating the juice of homogenized bio-matter for a predetermined length of time comprises:

a heater for heating the juice; and

a flexible length piping apparatus.

21. An automated processing apparatus as set forth in claim 1, wherein said means for heating the juice of homogenized bio-matter for a predetermined length of time

comprises:

a heater for heating the juice; and

a flexible length piping apparatus.

22. An automated processing apparatus as set forth in claim 21, wherein said flexible length piping apparatus comprises a plurality of pipes connected to one another in series by a plurality of removable elbow joints defining a pipeline having an adjustable predetermined length.

23. An automated processing apparatus as set forth in claim 1, wherein said means for centrifuging the heat treated juice of homogenized bio-matter to separate pellet from supernatant comprises a stacked cone-type centrifuge.

24. An automated processing apparatus as set forth in claim 23, wherein said centrifuge expels pellet at predetermined time intervals controlled by said computer.

25. An automated processing apparatus as set forth in claim 1, wherein said computer comprises:

a monitor for displaying information;

memory for storing collected data;

a plurality of inputs for receiving data from the automated processing apparatus; and

means for outputting data.

26. An automated processing apparatus as set forth in claim 25, wherein said means for outputting data comprises a printer for printing a written record of processing steps for processing bio-matter.

27. A computer for controlling an automated processing apparatus for processing bio-matter, the computer comprising:

a monitor for displaying information;

memory for storing collected data;

means for inputting data; and

means for outputting data;

wherein said computer is connected to, for control and operation of the following:

motors within a means for homogenizing bio-matter;

means for adjusting pH of juice of homogenized bio-matter;

means for heating the juice of homogenized bio-matter to a predetermined temperature for a predetermined length of time; and

means for centrifuging the heat treated juice of homogenized bio-matter to separate pellet from supernatant.

28. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said means for outputting data comprises a printer for printing a written record of processing steps for processing bio-matter.

29. A computer for controlling an automated processing apparatus as set forth in claim 28, wherein said computer is further connected to a filtering means for control and operation thereof.

30. A computer for controlling an automated processing apparatus as set forth in claim 29, wherein said filtering means includes an ultrafiltration system.

31. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said computer is further connected to, for control and operation thereof:

means for re-suspending pellet after centrifuging;

means for adjusting pH of re-suspended pellet; and

second centrifuging means for centrifuging pH adjusted re-suspended pellet.

32. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said motors within a means for homogenizing bio-matter provide rotary power to a first cutter, a second cutter and a press,

said first cutter having a plurality of blades for cutting the bio-matter to a first predetermined size;

said second cutter having a plurality of hammers for reducing the bio-matter to a second predetermined size smaller than the first predetermined size; and

said press for extracting green juice from the bio-matter and expelling solid waste material.

33. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said motors within a means for homogenizing bio-matter provide rotary power to a first cutter, a second cutter and a press,

said first cutter having a plurality of blades for cutting the bio-matter to a first predetermined size;

said second cutter having a plurality of blades for cutting the cut bio-matter to a second predetermined size smaller than the first predetermined size; and

said press for extracting green juice from the bio-matter and expelling solid waste material.

34. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said motors within a means for homogenizing bio-matter provide rotary power to a first cutter, a second cutter and a press,

said first cutter having a plurality of hammers for reducing the bio-matter to a first predetermined size;

said second cutter having a plurality of hammers for reducing the cut bio-matter to a second predetermined size smaller than the first predetermined size; and

said press for extracting green juice from the bio-matter and expelling solid waste material.

35. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said motors within a means for homogenizing bio-matter provide rotary power to a first cutter, a second cutter and a press,

said first cutter having a plurality of hammers for reducing the bio-matter to a first predetermined size;

said second cutter having a plurality of knives for reducing the bio-matter to a second predetermined size smaller than the first predetermined size; and

said press for extracting green juice from the bio-matter and expelling solid waste material.

36. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said computer is further connected to, for control and operation of a dryer for drying the solid waste material expelled from said means for homogenizing bio-matter.

37. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein said computer is further connected to:

a pH sensor within a tank of said pH adjusting means; and

a pH adjuster valve for controlling flow of a pH adjuster in response to signals from said pH sensor, pH adjuster being provided to said tank for adjusting pH of green juice within said tank.

38. A computer for controlling an automated processing apparatus as set forth in claim 27 further comprising a valve downstream from said means for adjusting pH of juice of homogenized bio-matter, said valve being connected to said computer for control of said valve; and

wherein said means for heating the juice of homogenized bio-matter comprises:

a flow meter;

a heater for heating the juice;

at least one temperature sensor proximate an outlet of said heater; and

a flexible length piping apparatus;

wherein, said computer is further connected to said temperature sensor and said flow meter, flow of juice through said flow meter and temperature of the juice being monitored by said computer and in response to non-optimal parameters sensed by said temperature sensor or said flow meter, said valve downstream from said means for adjusting pH is manipulated to change flow of the juice.

39. A computer for controlling an automated processing apparatus as set forth in claim 27, wherein means for centrifuging comprises a stacked cone-type centrifuge having means for expelling pellet connected to and controlled by said computer.

40. An automated computer controlled method for obtaining a virus from a plant comprising the sequential steps of:

(a) having a computer control homogenization of a plant to produce a green juice homogenate;

(b) having the computer control monitoring and adjustment of pH of the green juice homogenate to a first predetermined pH level;

(c) having the computer control heating of the green juice homogenate to a predetermined temperature;

(d) having the computer control centrifuging of the green juice homogenate to produce a pellet;

(e) having the computer control re-suspension of the pellet in a liquid solution;

(f) having the computer adjust the pH of the liquid solution containing the re-suspended pellet to a predetermined second pH level;

(g) having the computer control centrifuging the liquid solution of step (f) containing the re-suspended pellet to produce a supernatant; and

(h) having a computer control an ultrafiltration apparatus for purifying the virus from the supernatant.

41. An automated computer controlled method for obtaining a virus from a plant comprising the sequential steps of:

(a) having a computer control homogenization of a plant to produce a green juice homogenate;

(b) having the computer control adjustment of pH of the green juice homogenate to a predetermined pH level;

(c) having the computer control heating of the green juice homogenate to a predetermined temperature;

(d) having the computer control centrifuging of the green juice homogenate to produce a supernatant; and

(e) having the computer control an ultrafiltration apparatus for purifying the virus from the supernatant.

42. A plant processing apparatus comprising:

a first grinder adapted to grind plant material;

a second grinder adapted to further grind the plant material; and

a press for separating solids and liquid from the ground plant material.

43. A plant processing apparatus as set forth in claim 42 wherein said first and second grinders are configured to homogenize the plant material for maximum cell disruption thereby releasing material from cells in the plant material.

44. A plant processing apparatus as set forth in claim 42 wherein said first grinder is supported on said second grinder.

45. A plant processing apparatus as set forth in claim 42 wherein said first grinder exhausts into said second grinder.

46. A plant processing apparatus as set forth in claim 42 wherein said first grinder is supported on said second grinder and exhausts into said second grinder.

47. A plant processing apparatus as set forth in claim 42 wherein said second grinder is supported on said press.

48. A plant processing apparatus as set forth in claim 42 wherein said second grinder exhausts into said press.

49. A plant processing apparatus as set forth in claim 42 wherein said second grinder is supported on said press and exhausts into said press.

50. A plant processing apparatus as set forth in claim 42 wherein said first grinder is supported on said second grinder, said second grinder is supported on said press.

51. A plant processing apparatus as set forth in claim 50 wherein said first grinder exhausts into said second grinder, said second grinder exhausts into said press.

52. A plant processing apparatus as set forth in claim 42 wherein said first grinder, said second grinder, and said press are connected to a controlling computer.

53. An automated plant processing apparatus comprising:

a first grinder for grinding plant material;

a second grinder for further grinding of the plant material;

a press for separating solids and liquid from the ground plant material; and

a computer connected to said first grinder, said second grinder and said press for control of each.

54. An automated plant processing apparatus as set forth in claim 53 wherein said first and second grinders are configured to grind the plant material for maximum cell

disruption thereby releasing material from cells in the plant material.

55. An automated plant processing apparatus as set forth in claim 53 wherein said first grinder is supported on said second grinder.

56. An automated plant processing apparatus as set forth in claim 54 wherein said first grinder exhausts into said second grinder.

57. An automated plant processing apparatus as set forth in claim 53 wherein said first grinder is supported on said second grinder and exhausts into said second grinder.

58. An automated plant processing apparatus as set forth in claim 53 wherein said second grinder is supported on said press.

59. An automated plant processing apparatus as set forth in claim 53 wherein said second grinder exhausts into said press.

60. An automated plant processing apparatus as set forth in claim 53 wherein said second grinder is supported on said press and exhausts into said press.

61. An automated plant processing apparatus as set forth in claim 53 wherein said first grinder is supported on said second grinder, said second grinder is supported on

said press.

62. An automated plant processing apparatus as set forth in claim 61 wherein said first grinder exhausts into said second grinder, said second grinder exhausts into said press.

63. An automated plant processing apparatus as set forth in claim 62 wherein said computer is further connected to a dryer for drying solid materials separated by the press from ground plant material.

64. An automated plant processing apparatus as set forth in claim 53 wherein said computer is further connected to a dryer for drying solid materials separated by the press from ground plant material.

65. An automated plant processing apparatus as set forth in claim 64 further comprising a conveyor for conveying solids from said press to said dryer.

66. An automated plant processing apparatus as set forth in claim 53 further comprising a pH adjusting apparatus for adjusting pH of liquid exhausted from said press.

67. An automated plant processing apparatus as set forth in claim 66, wherein said pH adjusting apparatus comprises;

a first tank for retaining liquid exhausted from said press;

a second tank connected to said first tank for supplying pH adjuster to said first tank;

a pump between said first and second tanks connected to said computer for selectively controlling flow of pH adjuster from said second tank into said first tank;

a pH sensor in said first tank providing pH level signals to said computer such that said computer controls flow of pH adjuster into said first tank in response to signals from said pH sensor.

68. An automated plant processing apparatus as set forth in claim 67, wherein said pH adjusting apparatus further comprises;

a flow pump connected to an exhaust pipe of said first tank;

a flow meter in said exhaust pipe of said first tank for measuring flow out of said first tank;

a re-circulation valve downstream from said flow pump, said re-circulation valve connected to a re-circulation pipe for re-circulating liquid out of said first tank back into said first tank, said re-circulation valve being controlled by said computer.

69. An automated plant processing apparatus as set forth in claim 66 further comprising a heating apparatus for heating pH adjusted liquid exhausting said pH adjusting apparatus.

70. An automated plant processing apparatus as set forth in claim 69 wherein said heating apparatus comprises a heater for heating the pH adjusted liquid and a

plurality of insulated pipes for maintaining liquid at a predetermined temperature.

71. An automated plant processing apparatus as set forth in claim 69 further comprising a cooling apparatus for cooling liquid exhausting said heating apparatus.

72. An automated plant processing apparatus as set forth in claim 71 further comprising a surge tank for storing liquid exhausting said cooling apparatus.

73. An automated plant processing apparatus as set forth in claim 72 wherein said surge tank includes:

a flow pump connected to an exhaust pipe of said surge tank;

a flow meter in said exhaust pipe of said surge tank for measuring flow out of said surge tank;

a re-circulation valve downstream from said flow pump, said re-circulation valve connected to a re-circulation pipe for re-circulating liquid out of said surge tank back into said surge tank, said re-circulation valve being controlled by said computer.

74. An automated plant processing apparatus as set forth in claim 73 further comprising a first centrifuge selectively supplied with liquid via control by said computer of said re-circulation valve.

75. An automated plant processing apparatus as set forth in claim 74 further comprising a pellet tank for receiving separated pellet from said first centrifuge.

76. An automated plant processing apparatus as set forth in claim 75 wherein said pellet tank includes:

a water supply for adding liquid to the pellet in said pellet tank;

means for adjusting pH of liquid and pellet in said pellet tank;

a flow pump connected to an exhaust pipe of said pellet tank;

a flow meter in said exhaust pipe of said pellet tank for measuring flow out of said pellet tank;

a second re-circulation valve downstream from said flow pump, said re-circulation valve connected to a re-circulation pipe for re-circulating liquid out of said pellet tank back into said pellet tank, said second re-circulation valve being controlled by said computer.

77. An automated plant processing apparatus as set forth in claim 76 further comprising a second centrifuge selectively supplied with re-suspended pellet via control by said computer of said second re-circulation valve.

78. An automated plant processing apparatus as set forth in claim 77, further comprising a supernatant tank downstream from said first centrifuge for collecting extracted supernatant S1 exhausted from said first centrifuge.

79. An automated plant processing apparatus as set forth in claim 78 further comprising a plurality of filters downstream from said supernatant tank for filtering said

supernatant S1.

80. An automated plant processing apparatus as set forth in claim 79 wherein said plurality of filters comprises:

a first filter for filtering out a first group of predetermined sized particles from said supernatant S1;

a second filter for filtering out a second group of predetermined sized particles said supernatant S1; and

an ultrafiltration system for reducing liquid in said filtered supernatant S1.

81. An automated plant processing apparatus as set forth in claim 80, further comprising a second supernatant tank downstream from said second centrifuge for collecting extracted supernatant S2 exhausted from said second centrifuge.

82. An automated plant processing apparatus as set forth in claim 81 further comprising a plurality of filters downstream from said supernatant tank for filtering said supernatant S2.

83. An automated plant processing apparatus as set forth in claim 82 wherein said plurality of filters comprises:

a third filter for filtering out a first group of predetermined sized particles from said supernatant S2;

a fourth filter for filtering out a second group of predetermined sized particles said

supernatant S2; and

said ultrafiltration system for reducing liquid in said supernatant S1 and S2.

84. An automated plant processing apparatus as set forth in claim 83 wherein said computer comprises: memory, a storage device and an outputting device.

85. An automated plant processing apparatus as set forth in claim 84 wherein said computer is programmed to track and record all processing steps performed by the automated plant processing apparatus, wherein tracked information is output via said outputting device.

86. An automated plant processing apparatus as set forth in claim 85 wherein said outputting device comprises a printer.

86. An automated plant processing apparatus as set forth in claim 53 wherein said computer comprises: memory, a storage device and an outputting device.

87. An automated plant processing apparatus as set forth in claim 86 wherein said computer is programmed to track and record all processing steps performed by the automated plant processing apparatus, wherein tracked information is output via said outputting device.

88. An automated bio-matter processing apparatus, comprising:

a grinder adapted to receive the bio-matter and to extract juice from the bio-matter;

a juice pH monitoring and adjustment system located downstream of the grinder to receive the juice from the grinder and to monitor and adjust pH of the juice;

a heater located downstream of the juice pH monitoring and adjustment system to receive pH adjusted juice and to heat the pH adjusted juice to a first temperature for a first length of time;

a centrifuge located downstream of the heater to receive heated pH adjusted juice and to separate the heated pH adjusted juice into a pellet stream and a supernatant stream; and

a computerized control system communicated with the grinder, the juice pH monitorizing and adjustment system, the heater and the centrifuge, so that the control system monitors and controls the automated processing apparatus.

89. The apparatus of claim 88, further comprising:

a filtering system located downstream of the supernatant stream from the centrifuge to filter the supernatant stream.

90. The apparatus of claim 89, wherein the filtering system comprises:

at least one first filter; and

a separate ultrafiltration system.

91. The apparatus of claim 88, further comprising:

a resuspension tank located downstream of the pellet stream from the centrifuge;

a pellet stream pH monitoring and adjustment system located downstream of the resuspension tank; and

a second centrifuge located downstream of the pellet stream pH monitoring adjustment system.

92. The apparatus of claim 88, wherein the grinder comprises:

a first cutter;

a second cutter; and

a press.

93. The apparatus of claim 88, wherein the heater comprises:

a flexible length piping apparatus.